GRT LITE™ Model Pro 8A

User Manual

System Components:
- 1 GRT LITE Model Pro 8A
- 1 Battery Charger
- 4 "AA" Rechargeable Batteries (2200 nickel metal hydride)
- 1 GRT LITE Model Pro 8A User Manual
- 1 Warranty Card

Regulatory Information:
- FDA 510K Number: K050668
- FDA Owner/Operator Number: 9070001
- FDA Establishment Registration Number: 3005034436
- FDA Product Classification: Class II NHN
- FCC Part 15B Compliant

GRT LITE FDA Registered Indications for use:
-Adjunctive use in providing temporary relief of minor chronic neck and shoulder pain of musculoskeletal origin.
-Adjunctive use in providing temporary relief of hand and wrist pain associated with Carpal Tunnel Syndrome.

GRT LITE Claims:
GRT Solutions Inc. makes no claims for the product other than the indications for use registered with the FDA. In the event that anyone is making claims for the GRT LITE, other than the indications for use listed above, please contact and inform GRT Solutions Inc. immediately at (323) 653-2818.

GRT LITE Caveats
Light therapy is safe and non-invasive. GRT Solutions Inc. is not responsible for improper use of the GRT LITE or any other therapy device. GRT Solutions Inc. does not endorse or recommend how the GRT LITE is used. Consult your doctor for this and any other therapy before use. Although not likely, if there is an adverse reaction to the GRT

LITE, stop using it immediately and drink plenty of water. As with any therapy, some precautions should be taken when using this instrument.

Avoid shining the GRT LITE into the eyes while open or closed.
The GRT LITE is an LED (Light Emitting Diode) product which emits a bright red light. As with any light generating product, one should avoid direct exposure to the eye. Shining the light on an eye with the eyelids closed is not recommended. Consult your doctor before treating the eyes or any other part of your body.

Avoid treating pregnant women with the GRT LITE.
GRT Solutions Inc. position is to not use the GRT LITE on anyone who is pregnant. There have been no documented cases of light therapy harming a pregnant woman or fetus, but the fact remains that it is not recommended.

Avoid treating patients with a pacemaker with the GRT LITE.
GRT Solutions Inc. position is to not use the GRT LITE on anyone who has a pacemaker. There have been no documented cases of light therapy harming anyone with a pacemaker, but the fact remains that it is not recommended.

Avoid treating patients that are sensitive to light (photosensitivity).
It is not recommended to treat anyone who is sensitive to light. Although, genetic sensitivity to light is not very common, many prescription drugs cause photosensitivity. Some common prescription drugs that may cause photosensitivity are Retin A, Iodine and certain antibiotics. Please consult your doctor or pharmacist regarding the photosensitivity of your medications before using the GRT LITE.

Avoid treating directly over the thyroid (front throat area).
Avoid using the GRT LITE directly over the thyroid. The thyroid tissue is not in danger of being damaged by the light therapy. However, the thyroid absorbs Iodine, and Iodine is a light sensitive chemical. There have been no documented cases of light therapy harming the thyroid, but the fact remains that it is not recommended.

Battery Usage

Rechargeable Batteries (Included)
The GRT LITE is designed to perform with a consistent power output. For this reason nickel metal hydride rechargeable batteries are recommended.

Four 2200 mAh NiMh are included with your unit.

Battery Charger (Included)
The included batteries are not charged and need to be fully charged before using the GRT LITE. The included battery charger is purchased from a third party vendor and included with your purchase. The Battery charger is not under warranty through GRT Solutions Inc. or the GRT LITE. If you choose to purchase a third party battery charger be sure it is made specifically to recharge "AA" nickel metal hydride batteries. Please follow the recommended battery charging procedures recommended by the manufacturer of the third party battery charger. GRT Solutions Inc. or the GRT LITE is not responsible for damage to the GRT LITE caused by the use of alkaline batteries or batteries that were charged improperly.

Alkaline Batteries Are Not Recommended!
There are no dangerous or harmful risks associated to alkaline battery use in the GRT LITE. However, alkaline batteries are not recommended for the GRT LITE unit operation. Alkaline batteries lose their charge quickly and may disrupt the low battery indication mechanism of the unit. Damage to the unit caused by the use of alkaline batteries will void the GRT LITE warranty.

Low Battery Indication – LED's flash several times and then the unit turns off.
When the battery power level drops below a certain output, the unit will generate a low battery alert. The low battery indication is a visual cue from the unit of several flashes of the red LED's and then the unit will turn off. This visual cue does not indicate that the batteries are completely discharged. It indicates that the batteries do not have enough energy to maintain the consistent power output necessary to run the unit, and need to be recharged.

Loading the batteries
The GRT LITE model PRO 8A uses two "AA" rechargeable batteries.

Step 1 – Place unit face down with the red lens facing away from you. The back label should be right side up.

Step 2 – Press the ridges on the back panel and pull toward your body to expose the battery compartment.

Step 3 – Using freshly charged nickel metal hydride batteries - load the batteries as per markings shown on the inside of the battery compartment. The left battery should be "+" side pointing towards the bottom of the unit and the right battery should be "+" side pointing toward the lens of the unit.

User Responsibilities
The GRT LITE will perform as described when operated and maintained as recommended in this operation manual. Upon receipt of the product it should be inspected for obvious broken or missing parts. In the event that the GRT LITE needs to be replaced or repaired please contact the customer service department immediately at:

GRT Solutions Inc.
PO Box 480197
Los Angeles, CA 90048
(323) 653-2818

It is mandatory that the user read and be familiar with the contents of this operation manual. Please familiarize yourself with the troubleshooting information - this will minimize avoidable misuse of the equipment.

Opening Unit Voids Warranty!
In the event that the GRT LITE needs repair or replacement it is important that the user does not open the unit. Opening the unit voids the warranty! The user of the product shall have the sole responsibility for any malfunction which results from improper use, unauthorized maintenance or repair, externally caused damage or alteration by anyone other than GRT Solutions, Inc.

Specifications
Power: 185 Ma.
Operation: Voltage 1.6v – 4.6v
Safety: Chassis-to-ground risk current 0μA
Weight: 5.4 oz with batteries (153.09grams)
Dimensions: 4.344" x 2.376" x 1.100" (110.338mm x 60.198mm x 27.94mm)
Temperature: -40C to 100C operating, -20 to 50C storage
Humidity: 15% to 90% non-condensing
Altitude: operational capacity beyond MMI standard of -500 to +5000 feet elevation barometric pressures
Battery Rated: at 2.7v – (4) "AA" 2200mAh (to 0.7v) Nickel Metal Hydride 14.3 hrs continuous operation/ 22.6 hrs pulsed operation

Visible Red LED Diodes
Diodes: two (2) red light emitting diodes
Power: maximum power output per diode less than or equal to 4.5mw; diffuse beams
Wavelength: 628nm (plus or minus 5%)
Safety: chassis-to-ground risk current during operation 0μA
Color: Red
Temperature: 10C to 40C operating, -20 to 50C storage
Humidity: 15% to 90% non-condensing

Non Visible Infrared LED Diodes
Diodes: two (2) infrared light emitting diodes
Power: maximum power output per diode less than or equal to 7.0mw; diffuse beams
Wavelength: 850nm (plus or minus 5%)
Safety: chassis-to-ground risk current during operation 0μA
Color: Clear Infrared
Temperature: 10C to 40C operating, -20 to 50C storage
Humidity: 15% to 90% non-condensing

Operation
The GRT LITE is shipped with four (4) rechargeable "AA" batteries and a battery charger. All batteries will require an initial charge prior to first using the system. **Do not use alkaline batteries as it may negate the low battery indication and potentially damage the software of the unit. Damage to the unit caused by the use of alkaline batteries will void the GRT LITE warranty (See note under battery usage).**

The GRT LITE is easy to use and operate. It has six (6) pre-programmed modes of operation. Each mode button can be depressed to turn the unit "**ON"** or "**OFF**".

Mode Selection
You will notice that the GRT LITE has four diodes, the outer two diodes are red and the middle two diodes are infrared. The middle two infrared diodes emit a light which is not visible with the naked eye. When the "**R**" mode is depressed, the outer two visible red diodes illuminate in a continuous red light. When the "**I**" mode is depressed, the middle two diodes will emit a non-visible infrared light and a single flashing red light on diode 4. This lets you know that the system is "**ON**". Modes "**1**, **2**, **3**, & **4**" incorporate the use of all four diodes; each diode is pulsed at a different rate in each mode. The specific pulse frequencies are proprietary.

Mode	Diode 1 Red	Diode 2 Infrared	Diode 3 Infrared	Diode 4 Red	Run Time Auto Off
1	Pulsed	Pulsed	Pulsed	Pulsed	15 Min
2	Pulsed	Pulsed	Pulsed	Pulsed	15 Min
3	Pulsed	Pulsed	Pulsed	Pulsed	15 Min
4	Pulsed	Pulsed	Pulsed	Pulsed	15 Min
R	Continuous	Off	Off	Continuous	15 Min
I	Off	Continuous	Continuous	2 Hz	15 Min

Maintenance
The GRT LITE is virtually maintenance free. Although the units are durable, please do not drop, throw or toss the GRT LITE. Simply keep unit from getting dirty or wet. The lens can be cleaned with a soft cotton cloth. If the outside of the unit needs to be cleaned more thoroughly use a cotton swab with denatured alcohol to remove debris from the surface of the unit. Do not use alcohol to clean the inside of the battery compartment.

Troubleshooting
If the GRT LITE has any problems that are not listed below, please call GRT Solutions Inc. for help at 323-653-2818.

Unit flashes several times and then turns "OFF"

- This indicates a Low Battery – remove and replace batteries with freshly charged Nickel Metal Hydride batteries.

Unit does not turn "ON"

- Replace and recharge batteries with Nickel Metal Hydride batteries

- Be sure that alkaline batteries are not in the unit

- Verify the direction of batteries

Middle LEDs do not turn "ON"

The two center LEDs emit infrared light. Infrared light is not visible with the naked eye. If you would like to visualize and verify if the middle lights are working, one would need a digital camera (a digital cell phone camera will do). Simply press the "**I**" mode to initiate the infrared lights. One red LED will flash to alert the user that the infrared lights are "**ON**". Using your thumb cover the flashing red LED and then point the middle two lights into the lens of the digital camera. While looking at the digital camera screen, one should be able to visualize a purplish glow emitting from the center two infrared diodes. If these center lights can not be visualized through a digital camera, please call our office.

Center infrared LEDs as viewed through a digital camera

The unit makes a rattling sound when shaken

- The GRT LITE will have a rattling sound when shaken if there are no batteries in the unit. This sound is generated from the metallic clips which touch the batteries inside the battery compartment.

- The GRT LITE should not rattle when the batteries are in place.

- If the unit makes a rattling sound when the batteries are in place, please call our office.

Warranty/Guarantee

The original purchaser of the GRT LITE has a 30 day money back satisfaction guarantee, and a 90 day repair/replacement warranty from manufacture defects in material and workmanship under normal use from the day of purchase. An optional extended warranty is available directly from GRT Solutions Inc. Any and all guarantee and warranties cover non-abuse related breakage. Any and all guarantee and warranties are void if the product is opened or misused (for example but not limited to: wrong battery usage, water damage or if externally caused damage is present).

Returning the GRT LITE for warranty or repair

If the GRT LITE needs repair, or in the event that the purchaser is not completely satisfied within the 30 day money back guarantee period. Or if the unit is defective within the warranty period, please contact our office immediately. Before returning the instrument you must obtain a Return Material Authorization (RMA) number. Your RMA

number is our in house tracking system for returned products. **Your repair, replacement or refund will not occur without the RMA number.** You can fill out the form provided below or request a RMA form when you call.

For an RMA Number please call:

GRT Solutions Inc.
(323) 653-2818

RMA Number: _____

GRT LITE Serial Number: _____

Date of purchase ___/___/___

Owner Name _____
Owner Address: _____
Owner Phone: _____
Owner email: _____

Reason for return:

__ Repair
__ 30 day Money back guarantee
(the money will be returned to the credit card charged or by check only)
__ 90 day Warranty on Manufacture defect

__ Optional Extended Warranty

Please describe problem with unit or reason for return.
_____
_____
_____

Once form is completed please send to:

GRT Solutions Inc.
PO Box 480197
Los Angeles, CA 90048
(323) 653-2818

Warranty Registration

Please fill in and mail this form immediately after purchase. A Warranty will not be honored if the Warranty Registration is not completed and mailed to GRT Solutions Inc.
Date of Purchase ___/__/___

Purchased from: _____

System Serial Number: _____

Check those that apply:
___ GRT LITE model Pro 8A

___ Four (4) Rechargeable "AA" Batteries with charger

___ Model Pro 8A Operation Manual

Warranty is Void if the purchaser does not sign and register this product
By the purchasers signature below on this warranty card the purchaser acknowledges that:
- they have read and understand the Operation Manual.
-They understand that GRT Solutions Inc. makes no claims for this device except the indications of use acknowledged by FDA 510K# K050668. The indications for use of the GRT LITE are:

-Adjunctive use in providing temporary relief of minor chronic neck and shoulder pain of musculoskeletal origin.

-Adjunctive use in providing temporary relief of hand and wrist pain associated with Carpal Tunnel Syndrome.

-they agree to use the GRT LITE as recommended by their doctor.

Purchaser Signature _____

Purchaser Name _____
Address _____
City, State, Zip _____
Phone _____
Email _____

Mail to:
GRT Solutions Inc.
PO Box 480197
Los Angeles, CA 90048